08/861063

ABSTRACT

The present invention relates to a method, apparatus and system for optimising an expression tree (101,902,1102) for compositing an image. Such an expression tree (101,902,1102) can comprise at least two nodes. Each node is either a graphical element (102,104) or image compositing operator ((103,104) and has a region of the image represented by the node (102,103,104). In the method, for at least one node in the tree, several steps are carried out. The region represented by the node (103,104) is compared to a region representation data structure, which is preferably a quadtree representation, corresponding to one or more regions represented by at least one other node. A determination is then made if the region represented by the node (102,103,104) is totally or partially obscured by the one or more regions. If the region represented by the node is at least partially or totally obscured, the expression tree (101,902,1102) is modified. Modifying the expression tree (101,902,1102) involves applying a clipping operator (58,59) to the node if the region represented by the node is partially obscured. If the node is totally obscured, either removing the node if the node is a graphical element (102, 104) or applying a predetermined set of node replacement rules in accordance with the image compositing operator if the node (103) is a image compositing operator.